

State Injury Indicators



Drowning-Related Hospitalizations

Category:	Drowning Indicators
Demographic Group:	All residents.
Numerator:	Hospitalizations with any of the following ICD-9-CM diagnostic or E-codes identified from the injury hospital discharge subset: 994.1 (Drowning and nonfatal submersion), E830 (Accident to watercraft causing submersion), E832 (Other accidental submersion or drowning in water transport accident), E910 (Accidental drowning or submersion), E954 (Suicide and self-inflicted injury by submersion), E964 (Assault by submersion), E984 (Submersion, undetermined whether accidentally or purposefully inflicted).
Denominator:	Midyear population for the calendar year under surveillance.
Measures of Frequency:	Annual number of persons hospitalized. Annual incidence—crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population).
Period for Case Definition:	Calendar year.
Background:	Nonfatal drowning can result in lifelong disability. Among adolescents and adults, risk factors for drowning include drinking alcohol, swimming alone, and not wearing a personal flotation device while engaged in water sports or recreation. For children under age 5, unexpected access to water or brief lapses in adult supervision are implicated in most drowning incidents.*
Limitations of Indicator:	Injuries that result in a hospital admission represent only a portion of the overall burden of injury. Evaluations of these injuries should be considered in the context of both less- and more-severe injuries.
Data Resources:	State hospital discharge data (numerator) and population estimates from the U.S. Census Bureau or suitable alternative (denominator).
Limitations of Data Resources:	The accuracy of indicators based on codes found in hospital discharge data is limited by the completeness and quality of coding. The overall completeness of e-coding is of particular concern and should be reviewed in conjunction with the indicator.
Healthy People 2010 Objectives:	No objective.
CDC's Health Protection Goals:	Healthy People in Every Stage of Life: Start Strong Healthy People in Every Stage of Life: Grow Safe and Strong Healthy People in Healthy Places: Healthy Homes Healthy People in Healthy Places: Healthy Travel and Recreation

*Fietemeyer JR, Freas SJ, editors. Drowning: new perspectives on intervention and prevention. Boca Raton (FL): CRC Press; 1998.